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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/411,212	10/04/1999	DENNIS L. VENABLE	D/99423Q	8000

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EXAMINER
DASTOURI, MEHRDAD

ART UNIT	PAPER NUMBER
2623	12

DATE MAILED: 05/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/411,212	VENABLE, DENNIS L.	
	Examiner	Art Unit	
	Mehrdad Dastouri	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 April 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Continued Prosecution Application

1. The request filed on April 30, 2003 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/411,212 is acceptable and a CPA has been established. An action on the CPA follows.

Response to Amendment

2. Applicant's preliminary amendment filed April 30, 2003, has been entered and made of record.

3. Applicant's arguments regarding Claims 1-16 have been fully considered but they are not persuasive.

Prior art of record (Dermer et al) disclose generating bin lists with greater than three edge points (Table 1-3). Bin lists contain greater than three edge points therein. Claimed language does not recite greater than three edge points in each side of the polygon shape.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dermer et al (U.S. 5,313,570) in view of Fukuda et al (U.S. 5,867,593).

Regarding Claim 1, Dermer et al disclose a method of processing multiple structured images using an imaging input device with smart platen so as to reduce bleeding of edges of multiple digital images arranged upon the smart platen by determining the boundaries of each of the multiple images, comprising:

generating bin lists with greater than three edge points therein (Figures 11, 12, 14-16; Tables 2 and 3; Column 14, Lines 31 to Column 16, Line 20);

detecting a boundary of a first image from the bin list (Figure 6; Column 10, Lines 58-68, Column 11, Lines 1-32. Table 1 depicts the boundary of Object 1 (Red fill); Figures 12, 14-16; Tables 2, 3 and 9, "RED" object; Column 18, Lines 44-60);

detecting a boundary of a second image from the bin list (Figure 6; Column 10, Lines 58-68, Column 11, Lines 1-32. Table 1 depicts the boundary of Object 2 (Blue fill); Figures 12, 14-16; Tables 2 and 3, "BLUE" object; Column 16, Lines 21-36);

determining an overlap between the detected boundaries of the first and second images (Column 5, Lines 30-39; Column 11, Lines 33-49);

modeling a third image from the calculated overlap of the first and second images (Figures 14-16); and

determining an overlap between the detected boundaries of the first and second images (Figure 6; Column 4, Lines 62-68, Column 5, Lines 1-56; Column 10, Lines 58-68, Column 11, Lines 1-32. Table 1 depicts the boundary of Object 2 (Red fill).).

Dermer et al do not specifically disclose modeling third image wherein the third image contains at least said first and second images and represents a depiction of said first and second images without an overlap between said first and second images.

Fukuda et al disclose an image region dividing apparatus for discriminating image regions comprising generation of a third image containing at least a first and second images (Figure 25C, Images A' and B') and representing a depiction of a first and a second without an overlap between the first and second images (Figures 20-24; Column 21, Lines 37-48; Column 22, Lines 41-54).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Dermer et al et al invention according to the teachings of Fukuda et al to represent a depiction of the first and second overlapped images without an overlap between the images because it will eliminate redundant information in the first and second images and reduce image processing time and storage requirements.

Regarding Claim 2, Fukuda et al further disclose the method according to Claim 1, comprising:

wherein the step of determining an overlap of the first and second images uses a maximum threshold value in at least an X-axial direction for the first and second images (Figures 20B and 20H, Condition (a). The maximum threshold is Xei , Xsj should be smaller than the maximum threshold.).

Regarding Claim 3, Fukuda et al further disclose the method according to Claim 1, comprising:

wherein the step of determining an overlap of the first and second images uses a minimum threshold value in at least an X-axial direction for the first and second images (Figures 20B and 20H, Condition (a). The minimum threshold is Xsi , Xsj should be greater than the minimum threshold.).

Regarding Claim 4, disclose the method according to Claim 1, comprising:

wherein the step of determining an overlap of the first and second images further comprises:

determining a maximum threshold value in at least an X-axial direction for the first and second images (Figures 20B and 20H, Condition (a). The maximum threshold is Xei , Xsj should be smaller than the maximum threshold.),

determining a minimum threshold value in at least an X-axial direction for the first and second images (Figures 20B and 20H, Condition (a). The minimum threshold is Xsi , Xsj should be greater than the minimum threshold.),

comparing the maximum and minimum values of the first and second images in a manner so as to ascertain an overlap between the first and second images (Figure 20H, Condition (a)).

Regarding Claim 5, Fukuda et al further disclose the method according to Claim 4, comprising:

wherein the step of comparing includes further at least determining if a minimum threshold value in the X-axial direction of the first image (Xsj. Image j is considered the first image.) is greater than a maximum threshold value in the X-axial direction of the second image (Xei. Image i is considered the second image.) (Figure 20H. Xsj is greater than Xei.).

Regarding Claim 6, Fukuda et al further disclose the method according to Claim 4, comprising:

wherein the step of comparing includes further at least determining if a maximum threshold value in the X-axial direction of the first image is greater than a minimum threshold value in the X-axial direction of the second image (Figure 20H, Condition (a). The maximum threshold Xei is greater than the minimum threshold Xsi.).

Regarding Claim 7, as best understood by the Examiner, Fukuda et al further disclose the method according to Claim 4, comprising:

estimating the overlap of the first and second images in the X-axial direction based on the threshold values in the X-axial direction of the first and second images when an overlap between the first and second images is ascertained (Figure 21B).

Regarding Claim 8, Fukuda et al further disclose the method according to Claim 1, comprising:

wherein the step of determining an overlap of the first and second images further comprises:

determining a maximum threshold value in at least the Y-axial direction for the first and second images (Figures 20E and 20H, Condition (c). The maximum threshold is Yei , Ysj should be smaller than the maximum threshold.),

determining a minimum threshold value in at least the Y-axial direction for the first and second images (Figures 20E and 20H, Condition (a). The minimum threshold is Ysi , Ysj should be greater than the minimum threshold.).

With regards to Claim 9, arguments analogous to those presented for Claim 1 are applicable to Claim 9.

With regards to Claim 10, arguments analogous to those presented for Claim 2 are applicable to Claim 10.

With regards to Claim 11, arguments analogous to those presented for Claim 3 are applicable to Claim 11.

With regards to Claim 12, arguments analogous to those presented for Claim 4 are applicable to Claim 12.

With regards to Claim 13, arguments analogous to those presented for Claim 5 are applicable to Claim 13.

With regards to Claim 14, arguments analogous to those presented for Claim 6 are applicable to Claim 14.

With regards to Claim 15, arguments analogous to those presented for Claim 7 are applicable to Claim 15.

With regards to Claim 16, arguments analogous to those presented for Claim 8 are applicable to Claim 16.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Mehrdad Dastouri whose telephone number is (703) 305-2438. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703) 308-6604. The fax phone numbers for

the organization where this application or proceeding is assigned are (703) 308-9051 for regular communications and (703) 308-9051 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center Customer Service Office whose telephone number is (703) 306-0377.

Mehrdad Dastouri
Primary Examiner
Group Art Unit 2623
May 16, 2003